
Network and Signalling Diagnostic (LD 30)

The Network and Signaling Diagnostic program, (LD 30), is used to maintain Network loops. It may be run in background, loaded during the daily routines or loaded manually to enter commands. Problems are reported in NWS messages.

NWS messages

NWS0000	Program 30 has been loaded.
NWS0002	Invalid command was entered. Action: Check and re-enter the command.
NWS0003	The command contained an invalid parameter. The problem may be: 1. the loop, shelf or customer number is out-of-range 2. the loop or shelf specified is disabled or unequipped 3. the customer number specified does not Action: Check all command parameters and re-enter the command. If NWS003 is output again, the loop or shelf specified is unequipped or disabled.
NWS0004	Yellow alarm is set or loop is being audited.
NWS0005	No free channel for signaling test.
NWS0006	Loop is being audited or there is no channel equipped.
NWS0007	Attempted to enter a command other than END, while the previous command was still being executed. Action: Enter END to abort the current command.

NWS0008	A serious data error has been detected. Action: Contact your technical support group.
NWS0009	Issued an ENLL to an already enabled network loop or to a network loop associated with a disabled PS card. Command ignored by the system. Action: If the PS card was disabled, re-enable using LD 32 before enabling loop.
NWS0010	No response from Network card or no acknowledgment returned for previous message sent to the Network or Controller card (NT8D04/NT8D01).
NWS0013	A serious data error has been detected by NWS. Action: Contact your technical support group.
NWS0019	Carrier Remote superloop (LCI) did not respond to the request to disabling/enabling of the RTE superloop. Action: Ensure that the LCI is installed and that the H / W disabled switch on its faceplate is in the enabled position.
NWS0020	During execution of the signaling test, an input buffer overflow was detected and some input messages were lost. The signaling test was terminated. No fault is implied by this message. Action: Retry test later.
NWS0023 loop	During execution of the signaling test, a large number of line faults were detected, but storing the fault information required too much memory space. Testing of the PS card associated with this loop was terminated. Action: Beginning with the specified loop, test each of the remaining loops on the associated PS card separately. This message does not necessarily imply a fault on the specified loop.
NWS0024	Network Card fault list is full.
NWS0025	A serious data error has been detected by Network Card fault list management routines. The test is terminated.
NWS0030	Clock switching function not performed; could not determine which clock was active. Fault may be: Action: 1. QPC411 SCG 2. CE EXT connecting active CPU to network shelf 3. cables connecting the above cards via the Junctor

4. if you have no DTI hardware, ignore this message.

NWS0031 Clock switching function not performed. One or both of the QPC411 SCG cards are disabled. No fault implied.

NWS0042 Network Card interface test failed. The PE continuity test was not performed.

NWS0043 The requested PE cannot be tested because:

1. Peripheral Controller is disabled, or
2. the PE is not defined for the superloop, or
3. the PE shelf space occupied by the superloop is empty.

NWS0061c p1 p2 Clock switching function not performed. One or both QPC411 SCGs are disabled. No fault implied.

Action: Check for message ISR061.

NWS0101ps l1 l2 In Two or more loops (L1, L2, etc.) on Peripheral Signaling card ps failed the signaling test. Error code NWS201 is implied for these loops. Probable fault on PS card.

Action: Try the tests again. If fault persists after the card is replaced, suspect:

1. MISC card on active CPU
2. network cards L1, L2, etc.
3. CE EXT between active CPU and affected network shelf, network, conference and TDS cards in the same group
4. CPU cards

Loops may be tested separately using the LOOP L command.

NWS0102 Real-time clock on peripheral signaling card has failed. Probable fault is in the peripheral signaling card or MISC card on active CPU.

NWS0103 ps Fault detected in outgoing signaling on Peripheral Signaling card ps. The system is still able to signal using the bad card but the outgoing signaling rate may be reduced.

Action: Repeat the LOOP ALL test, or test any terminal loop associated with the PS card several times. If this message reappears, probable fault is on the PS card or, if the fault indication appears when one CPU is active but not when the other is active and the fault affects all groups, on:

1. either CE EXT connecting the affected network shelf to the active CPU, or in the cable between the extenders; or other PS cards or the MISC of the CPPU

which is active when the fault indication appears.

2. other PS cards or the MISC of the CPPU which is active when the fault indication appears.

NWS0141 c IGS card c failed to respond. Probable fault in:

1. IGS card c
2. CE EXT connecting active CPU to network shelf
3. other IGS card, or
4. associated cables

NWS0142 c Could not switch clocks when System Clock Generator (SCG) card c was providing clock. Fault may be:

1. either SCG
2. cables connecting SCG cards via Junctor
3. CE EXT connecting active CPU to network shelf.

NWS0143 n You cannot switch the clock controllers because the standby clock controller n is software disabled.

Action: Enable it in LD 60 provided is operational.

NWS0201 loop s1 s2 sn Two or more shelves (s1, s2, etc.) on the loop failed the signaling test. All cards failed the test on each shelf.

Action: See NWS301. If the loop is an RPE loop, go to LD 33. The fault may be in

1. network card for the loop
2. loop cable to PE shelves
3. faults on shelves s1 to s4 (depending on card density)
4. network, conference and TDS cards in same group
5. network extenders
6. CPU cards

NWS0202 loop s1 s2 Continuity test failed on this loop, shelves s1, s2. Signalling test was completed in spite of the fault. The fault may be:

1. peripheral buffer or controller on shelves
2. interconnecting cable to PE shelves
3. network card

4. peripheral signalling cards
5. network, conference and TDS cards in the same group
6. network extenders
7. CPU cards

Note: ERR3036 can also occur if a loop on the QPC414 Network card is not configured. This is not an error condition. To prevent ERR3036 occurring in this case, define the loop in LD17. Disable the unused loop.

NWS0203 loop Memory test on this loop failed. Timeslots associated with faulty memory locations are disabled. The network card is probably faulty. If a LOOP L command produces this response only on one of the CPUs, the fault may be in

1. the CE EXT connecting the network group (in which loop is located) to the CPU which is active when this message appears, or
2. in the cable connecting these extenders

NWS0204 loop The network circuit for this loop failed to respond to an ENLL, DISL, LOOP or SHLF command.

Action: Check whether the network card is missing or disabled through the faceplate switch. If a fault exists, then suspect the following:

1. the network card
2. the peripheral signaling card
3. the network, conference and TDS cards in the same group
4. the network extenders
5. the CPU card

NWS0211 loop s1 s2 s One or more shelves (s1, s2, etc.) failed the signaling test. At least one unit passed the signaling test.

See message NWS301.

If loop is an RPE loop, go to LD 33. The fault may be:

1. network card
2. loop cable to PE shelves
3. faults on shelves s1 to s4
4. network, Conference and TDS cards in same group
5. network extenders
6. CPU cards

NWS0301 l s c1 c2 cn Two or more PE cards c1, c2, etc. on loop l shelf s failed the signaling test, or the results of the shelf test varied. LD 30 automatically tests each shelf two ways.

If a card number is preceded by a minus sign, one or more units on that card were disabled. The fault may be:

1. one or more of cards c1, c2, etc.
2. peripheral buffer or controller for shelf
3. loop cable to PE shelf
4. network card the loop

If only one card is listed, an intermittent PE card fault is possible.

NWS0302 l s More than half of the cards on specified shelf S could not be tested because they were either busy or disabled, or there were no SL-1 telephones on shelf. This is not a fault condition.

Action: Repeat test if desired.

NWS0303 l s For single density loops, more than half the cards on specified shelf s could not be tested because they were busy or disabled. Try again later.

For double or quad density loops, 'some' of the cards in the shelf could not be tested because they were busy or disabled.

NWS0401 l s c: u1 u2 un A fault has been detected on:

1. PE card L s c (u1, u2, do not appear in the message), or
2. PE unit L s c u1u2

If a card or unit number is preceded by a minus sign, the card or unit was disabled. The fault may be:

1. PE card l s c peripheral buffer on the shelf
2. SL-1 or Digital sets associated with units u1, u2, etc.

NWS0501 l s c u The telephone at L s c u failed the signaling test. If the unit number is preceded by a minus sign, the set was disabled. The fault may be:

1. PE card
2. the telephone set

NWS0502 The network loop is not configured.

Action: Re-enter command.

NWS0601 loop	The loop requested is a Digital Trunk Interface (DTI) or Digital Link Interface (DLI). Action: Use the DTI diagnostic instead (LD 60).
NWS0602	DTI/DLI loop failed signaling test.
NWS0603	A previously faulty DTI/DLI loop passed the signaling test.
NWS0604	DTI loop is in a waiting state. A reset red alarm message has been sent.
NWS0608	Peripheral Software Download (PSDL) failure. Action: Check the SDL messages.
NWS0609	The XNET/XPND network card has a problem. Action: Check the card and its associated cable and repeat the command. If the problem persists, pull the card and plug it back in. If the problem persists on the same command again, replace the card.
NWS0610	A timeout occurred while waiting for the PSDL to complete the download function. Action: Repeat the command.
NWS0611	You cannot use this command when the card is in an overload condition.
NWS0612	Command parameter error; for NT8D02 Digital Line Card use: UNTT I s c u, for all others use: UNTT I s c.
NWS0613	The proper card is not equipped.
NWS0614	That command can not be completed. For NT8D02 Digital Line Card: 1. the unit is busy 2. the unit is manually disabled, or 3. the unit is not defined. For all others: 1. the card is manually disabled, or 2. no unit is defined on the card.
NWS0615	Loop must be a superloop.
NWS0617	Expanded shelf is not equipped.
NWS0620	Express output queue full, CPU can not send the message to the MISP.

NWS0621	The MISP output buffer is not available, possibly because the MISP has not read off the previous output message yet.
NWS0622	Invalid message or invalid environment in which to send the message to the MISP.
NWS0623	Cannot send message to the line card.
NWS0624	Since this shelf contains at least one BRI line card, one must wait 45 seconds before enabling the shelf/loop.
NWS0625	Database error. Protected pointers missing.
NWS0626	Self-test command only applies to the MISP network cards and BRI line cards. Make sure you specify correct card.
NWS0627	The MISP card must be in MANUAL DISABLED state to perform the selftest.
NWS0628	Line card must be disabled to invoke the self-test.
NWS0630	Loop is unequipped.
NWS0631	Loop is not responding.
NWS0632	Selftest failed. With X11 Release 19 and later, the following text will be appended to the message depending on the failure cause. 68020 CPU = The microprocessor is faulty. DRAM = The DRAM is faulty. DRAM PARITY ERROR = Parity was detected on the DRAM. AO7 CHIP = The AO7 is faulty. MFP = The MFP is faulty. INTERNAL LPBK = The internal loopback has failed. R75 1 = The first R75 chip failed. R75 2 = The second R75 chip failed R75 3 = The third R75 chip failed. R75 4 = The fourth R75 chip failed. S01 1 = The first S01 chip failed. S01 2 = The second S01 chip failed. S01 3 = The third S01 chip failed.

S01 4 = The fourth S01 chip failed.

NOT RESPONDING = The Meridian 1 software cannot communicate with the BRSC card, or the BRSC card cannot send the self-test results to the Meridian 1 software.

Action: For all failures, replace the BRSC card.

NWS0633	MISP status is undefined (MISP SLSTAT bit combination).
NWS0635	No response from the line card.
NWS0636	Cannot invoke MISP selftest.
NWS0637	Selftest passed.
NWS0638	Unit is not equipped.
NWS0639	TEI test could not be performed.
NWS0640	No response from the MISP.
NWS0641	Cannot execute command on MISP. Use LD 32.
NWS0650	Command not allowed for XCT loops.
NWS0652	This command is not valid on phantom loops, since phantom loops do not physically exist.
NWS0653	Cannot execute command on BCS Phantom loop. Use Overlay 32.
NWS0654	No Memory Test on BCS Phantom Loop.
NWS0800	The timeslot or junctor is busy. The test was not completed.
NWS0801	The continuity test failed.
NWS0802	Network Card (NT8D04) failed to respond.
NWS0803	Superloop number must be a multiple of 4.
NWS0804	Shelf number is not equipped.
NWS0805	Cannot send message to Network Card (NT8D04).
NWS0888	Invalid input. The loop or junctor number is out-of-range; the command is not allowed on superloops; or the terminating or transmitting party is disabled.

NWS0927	Network Card (NT8D04) failed to respond within 10 seconds after sending a request to read or clear a Peripheral Controller (NT8D01) maintenance display. Action: If the command fails a second time, check the status of the Network and Controller Card.
NWS0928	Superloop number must be multiple of 4.
NWS0929	Shelf number is not equipped.
NWS0930	Cannot send CPED or RPED message to Network Card (NT8D04). Action: Make sure the Network Card is installed and enabled.
NWS0931	Cannot determine if the XTRUNK value is a Universal Trunk or E&M/Dictation Trunk (NT8D14/NT8D15).
NWS0940	Wrong number of parameters.
NWS0941	Loop number is out-of-range.
NWS0942	Active input device will be disabled. Command is ignored. Action: Abort the program and input again from the maintenance console.
NWS0943	A serious data error has been detected by NWS. Action: Contact your technical support group.
NWS0944	Loop is already enabled.
NWS0945	No response from maintenance interface. Action: Check the Network Card (NT8D14) and try again.
NWS0946	No acknowledgment returned for a previous messages sent to the Network or Controller. The current command has been terminated. Action: Retry the command later. If the problem persists, contact your technical support group.
NWS0947	Time out from Peripheral Software Download (PSDL). Action: Retry the command. If the problem persists, contact your technical support group.
NWS0948	Specified Peripheral Software (PSW) version number is out-of-range (1-99). Action: Try again.

NWS0949	Specified Peripheral Software (PSW) version (1-99) not found on the mass storage device. Action: Use LD 22 to determine the available PSW versions and try again.
NWS0950	Unrecoverable error from Peripheral Software Download (PSDL). Action: Command aborted, try again. If problem persists, replace the card.
NWS0955	Peripheral Software (PSW) number in hardware and protected memory do not match. Action: Use LD 32 to disable the superloop and then enable it with software download option (ENLL {pswid}). Use LD 22 to determine the correct software version.
NWS0956	Card type not found. Action: Use LD 22 to find the card type for the Peripheral Software (PSW) version and try again.
NWS0957	Disk access error. Action: Check the disk for the fault and try again.
NWS0958	Cannot enable a DMSX superloop if FWA package is restricted.